

Sara Crepinsek

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Qualifications

I am a graduate of the University of Colorado with a Bachelor Degree in Environmental Science with an Emphasis in Climate and a minor in Atmospheric and Oceanic Science. I have experience in researching information and compiling data that has later been used by divisions in their assessment of both Arctic research and ozone depletion events. I have accomplished several procedures for data management (maintaining data stream flow of Arctic instrument suites), data archival (develop, implement, and maintain data stream organization structure), data retrieval (obtaining data-sets from international collaborations for ingesting purposes), and data submission to global/national archives. I have the experience and willingness to travel to extreme Arctic locations in the U.S. and other Arctic countries for installation, maintenance and repair trips as part of a team. I have also achieved company goals that include the organization of energy events and energy saving promotional campaigns. I am competent in computer office programs, such as MATLAB, Interactive Data Language (IDL), HYSPLIT Modeling, Microsoft Office and Mac software.

Education

2006-2010	University of Colorado at Boulder	Boulder, CO
	Bachelor Degree Environmental Science with an emphasis in Climate, Minor in Atmospheric and Oceanic Science	

Work Experience

- Cooperative Institute for Research in Environmental Sciences at the National Oceanic and Atmospheric Administration (PSD3 Weather & Climate Physics) 02/2012 – present
Arctic Data Manager (Professional Research Assistant) 303-497-6409
 - Manage incoming Arctic data streams and instrument operations of Arctic sites
 - Assist in the development of a web accessible ftp site for PSD Arctic data sets with consistent formats, file structures, data transfer, ingest and tools
 - Create and develop ingest, reformatting and diagnostic display software with MATLAB and IDL programs for Arctic data sets
 - Manage the processing and archiving of data from a wide range of commercial and research grade sensors
 - Site visit to the Arctic Station in Tiksi, Russia for maintenance and calibration of on-site instrumentation
 - Repairing, troubleshooting, and calibrating Tiksi Arctic instruments (ozone, sonic anemometers, etc.)
 - Creating instrument manuals/instruction sets for Arctic on-site repairs
 - Data downloading, data archival, data retrieval, data submission to global/national archives
 - Metadata assistance and implementation to the IASOA project (International Arctic Systems for Observing the Atmosphere)
 - Calculate, calibrate, organize, and smooth incoming Arctic station data streams
 - Creation of “Datagrams” for technical, mechanical, and processing support
 - Researching/writing comparative instrument studies to provide guidance on instrument modifications necessary for Arctic environments
 - Initiated research/writing of two scientific papers: “Comparison of Heat Flux Measurements and Calculations at an Arctic Site”, “Datagrams for Arctic Sites”

- Manage seasonal NOAA students for PSD3 scientist's profiles and documentaries

- 2B Technologies 02/2012 – 06/2012
Manufacturing Assistant 303-273-0559
 - Calibration of ozone monitors and calibration sources
 - Manufacturing of ozone monitor lamps and photo diodes
 - Running and creating experiments to improve the manufacturing of ozone monitor lamps and photo diodes

- Cooperative Institute for Research in Environmental Sciences at the National Oceanic and Atmospheric Administration 303-497-6279
Professional Research Assistant (Associate Scientist I) 12/2011 – 02/2012
 Science and Technology Corp. at the National Oceanic and Atmospheric Administration
Associate Computer Specialist 11/2010 – 11/2011
Tropospheric Ozone Program Research Assistant 11/2010 – 11/2011
 - Data analysis and plotting of Tropospheric ozone results using IDL programs
 - Taking ozone measurements using Dobson Radar
 - Process and archive ozone measurement data
 - Lab work: maintenance, construction, and upgrading of ozone aircraft, surface, and tower instruments from 2B Technologies and TEI Thermo Scientific Corporation
 - Perform calibrations using the TEI Standard Ozone Calibrator for aircraft, surface, and tower ozone instruments
 - Maintain and diagnose problems with ozone instruments at designated ozone sites across the world
 - Update and maintain NOAA ftp customer site with ozone data and plots
 - Creating HYSPLIT (Hybrid Single Particle Lagrangian Integrated Trajectory Model) trajectory models

- Cooperative Institute for Research in Environmental Sciences at the National Oceanic and Atmospheric Administration 05/2010 – 11/2010
Research Tech for NOAA/NGDC through CIRES 303-497-6135
 - Organize geomagnetic records into HTML compliant inventory spreadsheets
 - Organize and log geomagnetic literature and data
 - Organize station data reels

- Delta-Montrose Electric Association 05/2008 – 08/2008
Marketing and Public Relations Intern 05/2007 – 08/2007
 970-249-4572
 - Extensive work in Excel
 - Update informative environmental energy documents
 - Event planning for energy expositions to educate public of issues in power consumption
 - Database management regarding wind data and analysis
 - Public relations
 - Research project on efficiency of lighting in downtown area

Activities/Memberships/Awards/Technical Training

- Member of the American Meteorological Society
- Member of the American Geophysical Union
- Oral presentation at the American Geophysical Union Conference: “Comparison of Measurements and Calculations of Surface Heat Flux at an Arctic Site”, 2013
- Surface Ozone Principle Investigator for Tiksi Arctic Hydro-meteorological Station, 2013 (Tiksi, Russia)
- Training in surface ozone and sonic anemometer instrumentation maintenance, 2012, 2013
- Attended the International Polar Year 2012 Conference in Montreal, Canada
- Poster Presenter at Energy & Environment Workshop at University of Colorado, 2012
- Technical training in analyzing the effect of climate change on snow mold carbon dioxide respiration, 2010
- Technical training in microbial ecology, ornithology, soil biology, limnology, 2010
- NASA Student Involvement Program Regional First Place Winner, 2003
- Invited presenter at the 2003 National Science Teachers Association Convention

References

Taneil Uttal	303-497-6409	Relationship – NOAA Science Advisor
	Taneil.Uttal@noaa.gov	Meteorologist
Matthew Shupe	303-497-6471	Relationship – CIRES/NOAA Science Advisor
	Matthew.Shupe@noaa.gov	Research Scientist
Craig Williford	303-273-0559	Relationship – 2B Technologies Vice President for Operations
	craigw@twobtech.com	Vice President for Operations